



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/506,565	08/05/2005	Hozumi Ueda	05362.0038	3080

22852 7590 12/18/2006  
FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER  
LLP  
901 NEW YORK AVENUE, NW  
WASHINGTON, DC 20001-4413

EXAMINER

LE, TUNG X

ART UNIT PAPER NUMBER

2821

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	12/18/2006	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/506,565	<b>Applicant(s)</b> UEDA ET AL.	
	<b>Examiner</b> Tung X. Le	<b>Art Unit</b> 2821	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on amendment filed 20 November 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 5 and 8-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 5 and 8-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. This is a response to the amendment filed on November 20, 2006. In virtue of this amendment:

- Claims 1-4 and 6-7 are now cancelled;
- Claims 10-11 are newly added.
- Thus, claims 5 and 8-11 are currently presented in the instant application.

#### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

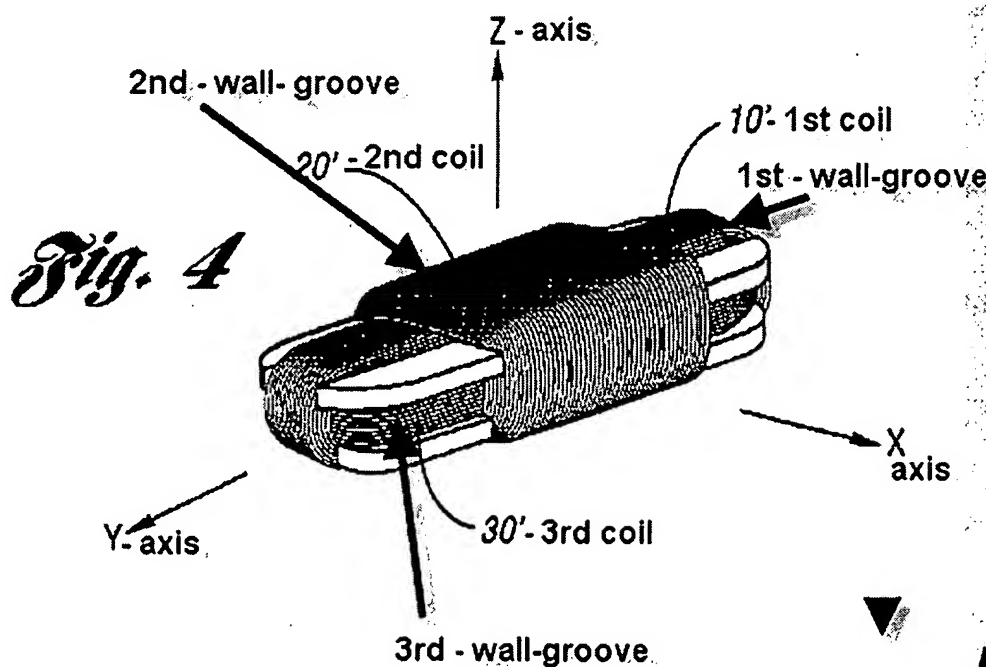
3. Claims 5 and 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nantz et al. (U.S. 6,563,474 B2, of record).

With respect to claim 5, Nantz discloses in figure 4 an antenna coil, comprising a flat (figure 4 shows a flat shape of the base component to wound coils on), approximately right-angled parallelepiped shape base component (figure 4) including a flat-shaped tab (see a flat-shaped tab indicated in figure 4) on each corner of the base component; a first coil (10'-first coil) wound around a first groove (see a first groove indicated in figure 4) along an X-axis of the base component (see an X-axis indicated in figure 4); a second coil (20'-second coil) wound around a second groove (see a second groove indicated in figure 4) along a Y-axis of the base component (see a Y-axis

Art Unit: 2821

indicated in figure 4); a third coil (30'-third coil) wound around a third groove (see a third groove indicated in figure 4) along a Z-axis of the base component (see a Z-axis indicated in figure 4); wherein fan-shaped configuration and includes at least a first, second, and third wall (see first, second, and third walls indicated in figure 4), each of which forms a lateral wall of the first, second, and third grooves, respectively (see figure 4 below); and except for specifying that each tab has a quarter-circle.

However, such each tab of Nantz having a quarter-ellipse will be performed the same with each tab having a quarter-circle. Thus, to employ an antenna coil of Nantz including with a quarter-circle shaped tab that would have been deemed obvious to a person skilled in the art.



With respect to claim 8, Nantz discloses in figure 4 that a first end component (negative side) of each of the first, second, and third coils is connected to common terminal (ground terminal) and a second end component (positive side) of each of the first, second, and third coils is each connected to a different terminal (figure 4).

With respect to claim 9, Nantz discloses that a winding end side end component (figure 4) of each of the first, second, and third coils is connected to the common terminal (grounding terminal).

With respect to claim 10, Nantz discloses that each of the first, second, and third coils has a plurality of loops (see first, second, and third coils in figure 4) which are adjusted to produce electric and magnetic fields of approximately equal intensities (figure 4).

With respect to claim 11, Nantz discloses that the antenna coil is placed inside a resin case (obvious to protect the coils).

### ***Response to Arguments***

4. Applicant's arguments filed November 20, 2006 have been fully considered but they are not persuasive.

With respect to claim 5, Applicant argues that Nantz fails to teach or suggest the following limitations:

- (1) A tab having a quarter-circle;
- (2) Each tab including a first, second, and third wall, each of which forms a lateral wall of a first, second, and third groove; and
- (3) The second coil of Nantz wound over and on top of four of the tabs.

***Thus, Examiner disagreed.***

(1) A tab having a shaped of a quarter-circle has been rejected under 103(a) above;

(2) Each tab including a first, second, and third wall, each of which forms a lateral wall of a first, second, and third groove (figure 4 above clearly shows all these limitations); and

(3) The second coil of Nantz wound over and on top of four of the tabs (these limitations are not shown or amended in claim 5).

***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

W. Funke et al. (U.S. 2,297,466) discloses a frame aerial.

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Art Unit: 2821

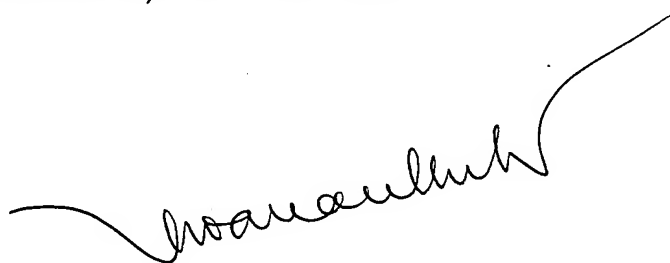
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tung X. Le whose telephone number is 571-272-6010. The examiner can normally be reached on 8:30 AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tim Callahan can be reached on 571-272-1740. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Examiner  
Tung Le

AU 2821  
December 08, 2006

A handwritten signature in black ink, appearing to read 'Hoanganh Le', is written over a wavy line.

Hoanganh Le  
Primary Examiner